

POLLEN OF SPARGANIUM AMERICANUM AND S.
ANDROCLADUM

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IN connection with the pollen analysis of a peat bog situated in a kettle-hole in the glaciated area of Wisconsin it was found necessary to make a study of the pollen characteristics of certain species of *Sparganium*. Although no key has been prepared for the identification of the species of this genus, certain observed differences in the characteristics of the pollen of two of them, namely, *S. americanum* Nutt. and *S. androcladum* (Engelm.) Morong, are of interest because of the confusion that has existed in the past in regard to these species.

Fernald¹ identified *S. lucidum* Fernald & Eames with *S. androcladum* and noted that, while the species is abundant in Missouri and adjacent Illinois, it is otherwise unknown or unrecorded between the Mississippi valley and eastern Pennsylvania. Fassett² found two stations of the species, both in kettle-holes, in Wisconsin where it was hitherto unrecorded. Two specimens of *S. androcladum* were used in this study, one collected at Gibraltar Rock, Lodi, Wisconsin, Oct. 3, 1926, Fassett & Wilson, no. 2889, the other at West Roxbury, Massachusetts, Forbes, no. 17204. Specimens of *S. americanum* collected at Dundee, New York, Wright, New Bedford, Massachusetts, Greene, Lone Rock, Wisconsin, Davis, 1921, Spring Green, Wisconsin, Davis, 1922 and Haugen, Wisconsin, Davis, 1923 were used.

Sparganium pollens are thin-walled and collapsible. Sears³ describes one of them ("*S. eurycarpum?*") as being spherical and monopored, with a thin, granular surface. The pollens of *S. androcladum* and *S. americanum* were found to differ from each other in the character of the granulation of the surface and in size. *S. androcladum* has a granular surface with a clean-cut outline throughout all, or at least the greater part, of its circumference. *S. americanum* shows a papillate surface which gives the outline of the grain much the appearance of a small-toothed cog-wheel, the intervals between the papillae being but slightly smaller than the diameter of the papillae. The pollen of *S. androcladum* averaged 28.4 mu. in diameter, that of *S. americanum* averaged 24.5 mu. Normal pollen grains were selected for measurement in each case (*i. e.*, badly collapsed or torn grains were not con-

¹ Fernald, RHODORA 24: 27 (1922).

² Fassett, Trans. Wis. Acad. Sci. Arts and Letters 25: 186 (1930).

³ Sears, Bot. Gaz. 89: 95 (1930).

sidered) and the measurements were made of the longest diameters where they were not exactly spherical.

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A NEW SELENIA FROM THE EDWARDS PLATEAU OF TEXAS

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SELENIA Jonesii, sp. nov., herba annua hiemans *prostrata* glabra, foliis petiolatis pinnatis bipinnatisve segmentis parvis oblongis, racemis folioso-bracteatis, floribus parvis luteis suaveolentibus, siliquis stipitatis ad 15 mm. longis, 10 mm. latis *subglobosis* vel ellipsoid-alibus *inflatis* stylo breve crasso.

A prostrate, glabrous, winter annual from a slender tap-root; branches leafy and up to 15 cm. or more in length; leaves petioled, up to 5 cm. long, pinnately or bipinnately divided into small, oblong, obtuse or acute segments 1-3 mm. long, the terminal segment usually being longer than the others and, in growth, subjected to further lobing; petioles slender and elongated, narrowly winged, and extending into a mid-vein more widely winged; racemes leafy-bracted and frequently clustered at the crown of the plant, but occurring also along the spreading branches; flowers small, yellow, fragrant, 5-6 mm. long; sepals shorter and paler than the petals, up to 5 mm. long, spreading; petals yellow, oblanceolate, up to 6 mm. long, erect; pedicels slender, spreading or slightly ascending, 1-3 cm. long; siliques stalked, up to 15 mm. long and 10 mm. broad, subglobose to elliptical, inflated, surmounted by a broad style which is 3 mm. high and 2 mm. broad at the base; seeds 10 or more, 2-rowed in each cell, orbicular, broadly winged, 3.5 mm. wide by including the margin which adds slightly more than one mm. to the width of the seed.

This species differs from the other species of *Selenia* in its prostrate growth and in its shorter, broader, and inflated fruit. Also it differs from *Selenia aurea* Nutt. in its shorter and stouter style, and differs from *Selenia dissecta* Torr. in having flowers half or less than half as large. The inflation of the fruit, after the fashion of *Physaria*, marks it clearly as a distinct new species.

The first collections of this species were made March 20, 1929, at the headquarters of the W. R. Baggett Ranch, 3 miles north of Ozona, Texas, and the same day at the Six Mile Water-hole on Johnson Draw at about six miles north of Ozona, and also on Mr. Baggett's ranch. These collections were discarded, when better specimens